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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,357	02/28/2002	David A. Meckes	1174/146	6603

25297 7590 01/23/2003

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DURHAM, NC 27707

EXAMINER

KOHNER, MATTHEW J

ART UNIT	PAPER NUMBER
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3653

DATE MAILED: 01/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/085,357

Applicant(s)

MECKES ET AL.

Examiner

Matthew J Kohner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Specification*

The disclosure is objected to because of the following informalities:

- There appears to be a typographical error on page 2, line 10. Examiner suggests inserting the word “than” between “less” and “a”.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 4,976,421 to Kanaya in view of US Patent No. 5,028,041 to Kobayashi and further in view of US Patent No. 4,256,297 to Prieur et al.

Kanaya discloses a method for controlling a sheet feeding device. The disclosure teaches a method for monitoring resource units (sheets) which includes determining a thickness of one or more resource units (Col. 2, lines 7+ and Col. 4, lines 12+ and See Figs. 8-17).

In his disclosure, Kanaya fails to specifically disclose indicating when the group of sheets reaches a predetermined size.

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Kobayashi discloses a device for feeding sheets which includes a sensor for determining both when a stack of sheets is below a first predetermined level (low level) and also when the stack is at a second predetermined level (empty) (Col. 3, lines 38+). Further, the disclosure teaches that device will indicate these situations to the user (Col. 3, lines 38+). However, Kobayashi's sensor would not work well with a feeding device such as Kanaya's, due to the fact that since Kanaya's feeder resiliently moves the sheets upward, Kobayashi's sensor would never turn clockwise to indicate a low level of paper. However, it is the concept of sensing the height of the stack at two predetermined levels and indicating this to the user which is the important thing to take from Kobayashi, rather than which sensor he actually uses. It is known in the art that other sensors such a light sensors may be used instead mechanical sensors. For example, Prieur discloses a hopper which includes a light detector to determine when a stack of sheets has reached a predetermined level.

There is motivation to add a paper supply sensor to Kanaya's device in that a "low level" indicator on Kanaya's feeder could prevent it from using all sheets and thereby experiencing downtime before the lack of paper was realized. Therefore, it would be obvious to one of ordinary skill in the art, that Kobayashi's sensing technique as modified by Prieur, could be used in conjunction with Kanaya's control and feeding system.

In regard to independent claims 9, 16, 21, 29 and 37, the above described combination of references discloses the all limitations of these independent claims including:

- detecting the size of a group of sheets
- determining the approximate thickness of a sheet
- calculating when stack will reach a predetermined size

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- controlling the device based on the thickness of sheet.

In regard to claims 2, 9, 22, and 30, while the references do not specifically disclose a mail insertion system, they do disclose other sheet feeding systems and it would be obvious to one of ordinary skill in the art that the teachings could be adapted to a mail insertion systems.

In regard to claim 6 and 18, while the references do not specifically disclose removing sheets from the bottom of the stack, as opposed to the top of the stack, it would have been an obvious matter of design choice to make the device feed from the bottom, since the applicant has not disclosed that by making the device in that particular way would solve any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the top feeder.

In regard to claims 25, 33, 38, Kanaya discloses a counter for determining the number of sheets removed from the stack (Col. 2, lines 11+)

In regard to claims 27, 28, 35, 36, 39 and 40, Kobayashi discloses a display device for indicating to the user the when the stack has reached a predetermined level (Col. 3, lines 44+)

In regard to claims 41-43, Kanaya's control method (Col. 4, lines 12+ and See Figs. 8-17) could be put in the form of a computer program.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Kohner whose telephone number is 703-305-8496.

The examiner can normally be reached on Mon-Fri 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on 703-306-4173. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.



Matthew J. Kohner  
Examiner  
Art Unit 3653

MJK  
January 2, 2003



DONALD P. WALSH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGICAL 600